

REMARKS

Status of the Claims

Claims 1-8 are pending in this application.

Claims 1-8 are rejected.

Claims 1 and 8 have been amended. Support for these amendments can be found throughout the specification, claims, and drawings, as originally filed.

Rejection of Claims 1-8 Under 35 U.S.C. § 112

Claims 1-8 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Examiner asserts that the phrase "having a cone shaped surface" lacks support in the instant disclosure and amounts to new matter. Applicant respectfully disagrees. The language in question is describing the shape of the intermediate LED that is formed after the first injection molding step. In the present application the drawings as originally filed show the intermediate LED 41 as having a cone shape. See Fig. 1 and Fig. 3. Furthermore the application at page 5, last paragraph states "Adjoining the top end face (47) in a recessed manner is a truncated right cone whose lateral surface (44) is in the shape of a truncated cone tapers away from the rectangular prism." Applicant maintains that there is support in the specification and drawings for the intermediate stage LED having a cone shape. Removal of the rejection is requested.

Claims 1-8 were also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner asserts that in claim 1, the phrase "in two casting and/or injection molding steps" is confusing because there are no

casting steps in the claims. Claim 1 has been amended to recite “in two injection molding steps.” Applicant believes that this rejection has been overcome, and that no new matter has been added.

The Examiner also states that in claim 8 the phrase “said injection molding step” is indefinite because it is unclear to which injection molding step is being referred. Claim 8 has been amended to recite said first injection molding step and said second injection molding step are injection-compression molding steps. Applicant believes that this rejection has been overcome, and that no new matter has been added.

The Examiner also asserts that in claim 8 the phrase “are injection molding step are” is indefinite because it is idiomatically correct. Claim 8 has been amended to recite said first injection molding step and said second injection molding step are injection-compression molding steps. Applicant believes that this rejection has been overcome, and that no new matter has been added.

Applicant respectfully requests withdrawal of the rejections under 35 U.S.C. § 112.

Rejection of Claims 1 and 3-7 Under 35 U.S.C. § 102(b)

Claims 1 and 3-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by JP 64-69019 (hereafter JP '019). Applicant respectfully traverses the rejection and requests reconsideration of the rejection based on the following remarks. The law is clear that anticipation requires that a single prior art reference disclose each and every limitation of the claim sought to be rejected. 35 U.S.C. § 102(b).

Applicant maintains that JP'019 fails to disclose all the elements of claims 1 and 3-7 because JP'019 does not disclose an annular channel is formed between an inner side wall region of the final LED mold and the one or more lateral surfaces of the

intermediate stage LED. See rejected claim 1 from which dependent claims 3-7 depend. The office action indicates that the projection (22) of JP'019 constitutes the claimed lateral surface. Claim 1 states that an annular channel is formed between an inner side wall region of the final LED mold and the one or more lateral surfaces of the intermediate stage LED. JP'019 fails in two respects. First there is no channel between the side wall of the mold and the projection (22) in JP'019. Second the projection (22) is not annular, therefore even if there was a channel it would not be an annular channel as recited by claim 1. For this reason alone JP'019 fails to disclose each and every element of rejected claim 1 and dependent claims 3-7 which incorporate all of the limitations of claim 1.

JP'019 also does not disclose an intermediate stage LED having a cone shaped surfaces and one or more lateral surfaces. See rejected claim 1 from which dependent claims 3-7 depend. JP '019 discloses a two-step method of injection molding an LED. The first step involves forming a secondary sealing body which encases the electrical components of an LED in a first mold. Then the primary sealing body (19) is placed in a second mold where a second resin is injected to form a second sealing body (24). See *abstract and Figs. 1-7*. Claim 1 of the present invention recites that said first injection molding step provides an intermediate stage LED having a cone shaped surface and one or more lateral surfaces. JP '019 does not disclose this element. Neither the primary sealing body 19 nor the secondary sealing body 24 are cone shaped; also, there is no mention of an intermediate stage LED having a cone-shaped surface and one or more lateral surfaces as recited by claim 1 of the present invention.

Contrary to the office action's position all of the elements of rejected claims 1 and 3-7 of the present invention are not disclosed in JP '019. At least the features of an disclose an annular channel is formed between an inner side wall region of the final

LED mold and the one or more lateral surfaces of the intermediate stage LED and an intermediate stage LED having a cone shaped surface and one or more lateral surfaces set forth in claim 1 are not disclosed in JP '019. Claims 3-7 are dependent on claim 1 and are likewise allowable because they also include the limitations of claim 1 that have been discussed above. For at least these reasons, Applicant requests removal of the rejection of claims 1 and 3-7 and allowance thereof.

Rejection of Claims 2 and 8 Under 35 U.S.C. § 103

Claims 2 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP '019. In order for the proposed references to be relied upon, a person having ordinary skill in the art at the time of the invention must have been motivated to modify the references based upon the teachings of those references.

In order to establish a *prima facie* case of obviousness three criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the applied reference must teach or suggest all the claim limitations.

Claims 2 and 8 are dependent claim which are dependent upon claim 1. JP'019 does not teach or suggest an annular channel formed between an inner side wall region of the final LED mold and the one or more lateral surfaces of the intermediate stage LED. See claim 1 from which rejected dependent claims 2 and 8 depend. The office action and JP '019 teach or suggest that the projection (22) of JP'019 constitutes the claimed lateral surface. Claims 2 and 8 require that an annular channel is formed between an inner side wall region of the final LED mold and the one or more lateral

surfaces of the intermediate stage LED. JP'019 fails in two respects. First there is no channel between the side wall of the mold and the projection (22) in JP'019. Second the projection (22) is not annular; therefore even if there was a channel it would not be an annular channel as required by claim 2 and 8. There is nothing in JP '019 that would teach or suggest modifying this reference to overcome these shortcomings. For this reason alone JP'019 fails to teach or suggest each and every element of rejected claims 2 and 8. Removal of the rejection is requested.

JP'019 also does not teach or suggest an intermediate stage LED having a cone shaped surfaces and one or more lateral surfaces. See rejected claim 1 from which rejected dependent claims 2 and 8 depend. JP '019 teaches a two-step method of injection molding an LED. The first step involves forming a secondary sealing body which encases the electrical components of an LED in a first mold. Then the primary sealing body (19) is placed in a second mold where a second resin is injected to form a second sealing body (24). See *abstract and Figs. 1-7*. Claims 2 and 8 recite that said first injection molding step provides an intermediate stage LED having a cone shaped surface and one or more lateral surfaces. JP '019 does not teach this element. Neither the primary sealing body 19 nor the secondary sealing body 24 are cone shaped; also, JP '019 does not teach or suggest an intermediate stage LED having a cone-shaped surface and one or more lateral surfaces as required by claim 2 and 8 of the present invention. For this reason JP'019 does not render claims 2 and 8 obvious. Removal of the rejection is respectfully requested.

CONCLUSION

It is respectfully submitted that in view of the above amendments and remarks the claims 1-8, as presented, are patentably distinguishable because the cited patents,

whether taken alone or in combination, do not teach, suggest or render obvious, the present invention. Therefore, Applicant submits that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 364-4300 if any unresolved matters remain.

Respectfully submitted,

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